THE PATENT OFFICE OF THE PEOPLE'S REPUBLIC OF CHINA

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Applicant:	S.S. STEINER, INC.	Date of Notification:
Attorney:	LIU MINGHAI	Date: 02 Month: 04 Year: 2004
Application No.:	01813250.2	
Title of the Invention:	RHO-ISOALPHA ACID HOP PRODUCTS AND METHODS	

Notification of the First Office Action
(PCT Application in the National Phase)

1. ☒The applicant requested examination as to substance and examination has been carried out on the above-identified patent application for invention under Article 35(1) of the Patent Law of the People's Republic of China (hereinafter referred to as "the Patent Law").
   ☐ The Chinese Patent Office has decided to examine the application on its own initiative under Article 35(2) of the Patent Law.

2. ☒ The applicant claimed priority/priorities based on the application(s):
   filed in US on June 30,2000, filed in _____ on _____;
   filed in _____ on _____, filed in _____ on _____.

3. ☐ The following amendments submitted by the applicant are not acceptable under Art. 33 of the Patent Law:
   ☐ The Chinese translation of the amendments annexed to the IPEA Report.
   ☐ The Chinese translation of the amendments made under Art. 19 of PCT.
   ☐ The amendments made under Art. 28 or Art. 41 of PCT.
   ☐ The amendments made under Rule 51 of the Implementing Regulations of the Patent Law.
   Specific reasons why the amendments are not acceptable are set forth in the text portion of this Notification.

4. ☒Examination was directed to the Chinese translation of the International Application as originally filed.
   ☐ Examination was directed to the application documents as specified below:
   ☐ Description ☐ Pages _____ of the Chinese translation of the International Application as originally filed.
   ☐ Pages _____ of the Chinese translation of the amendments annexed to the IPEA Report.
   ☐ Pages _____ of the amendments made under Art. 28 or Art. 41 of PCT.
   ☐ Pages _____ of the amendments made under Rule 51 of the Implementing Regulations of the Patent Law.
   ☐ Claims ☐ The Chinese translation of claims _____ of the International Application as originally filed.
   ☐ The Chinese translation of claims _____ of the amendments made under Art. 19 of PCT.
   ☐ The Chinese translation of claims _____ of the amendments annexed to the IPEA Report.
   ☐ The Chinese translation of claims _____ of the amendments made under Art. 28 or Art. 41 of PCT.
   ☐ The amendments of the claims _____ made under Rule 51 of the Implementing Regulations of the Patent Law.
   ☐ Drawings ☐ Pages _____ of the Chinese translation of the International Application as originally filed.
   ☐ Pages _____ of the Chinese translation of the amendments annexed to the IPEA Report.
   ☐ Pages _____ of the amendments made under Art. 28 or Art. 41 of PCT.
   ☐ Pages _____ of the amendments made under Rule 51 of the Implementing Regulations of the Patent Law.

5. ☒ Below is/are the reference(s) cited in this Office Action (the reference number(s) will be used throughout the examination procedure):

No.	Number(s) or Title(s) of Reference(s)	Date of Publication (or the filing date of conflicting application)
1	US 5583262A	Date: 10 Month: 12 Year: 1996
2		Date: __ Month: __ Year: ____
3		Date: __ Month: __ Year: ____
4		Date: __ Month: __ Year: ____
5		Date: __ Month: __ Year: ____

6. Conclusions of the Action:

☐ On the Specification:

☐ The subject matter contained in the application is not patentable under Article 5 of the Patent Law.

☐ The description does not comply with Article 26 paragraph 3 of the Patent Law.

☐ The draft of the description does not comply with Rule 18 of the Implementing Regulations.

☒ On the Claims:

☐ Claim(s) _____ is/are not patentable under Article 25 of the Patent Law.

☐ Claim(s) _____ does/do not comply with the definition of inventions prescribed by Rule 2 paragraph 1 of the Implementing Regulations.

☒ Claim(s) 16,17,21,23-27 does/do not possess the novelty as required by Article 22 paragraph 2 of the Patent Law.

☒ Claim(s) 1-15,18-20,22 does/do not possess the inventiveness as required by Article 22 paragraph 3 of the Patent Law.

☐ Claim(s) _____ does/do not possess the practical applicability as required by Article 22 paragraph 4 of the Patent Law.

☒ Claim(s) 1 does/do not comply with Article 26 paragraph 4 of the Patent Law.

☐ Claim(s) _____ does/do not comply with Article 31 paragraph 1 of the Patent Law.

☒ Claim(s) 1,3-10,12-18,20-23,25 does/do not comply with the provisions of Rules 20-23 of the Implementing Regulations.

☐ Claim(s) _____ does/do not comply with Article 9 of the Patent Law.

☐ Claim(s) _____ does/do not comply with the provisions of Rule 12 paragraph 1 of the Implementing Regulations.

The explanations to the above conclusions are set forth in the text portion of this Notification.

7. In view of the conclusions set forth above, the Examiner is of the opinion that:

☐ The applicant should make amendments as directed in the text portion of the Notification.

☐ The applicant should expound in the response reasons why the application is patentable and make amendments to the application where there are deficiencies as pointed out in the text portion of the Notification, otherwise, the application will not be allowed.

☒ The application contains no allowable invention, and therefore, if the applicant fails to submit sufficient reasons to prove that the application does have merits, it will be rejected.

☐ _____

8. The followings should be taken into consideration by the applicant in making the response:

(1) Under Article 37 of the Patent Law, the applicant should respond to the office action within 4 months counting from the date of receipt of the Notification. If, without any justified reason, the time limit is not met, the application shall be deemed to have been withdrawn.

(2) Any amendments to the application should be in conformity with the provisions of Article 33 of the Patent Law. Substitution pages should be in duplicate and the format of the substitution should be in conformity with the relevant provision contained in "The Examination Guidelines".

(3) The response to the Notification and/or revision of the application should be mailed to or handed over to the "Reception Division" of the Patent Office, and documents not mailed or handed over to the Reception Divisions have no legal effect.

(4) Without an appointment, the applicant and/or his agent shall not interview with the Examiner in the Patent Office.

9. This Notification contains a text portion of 5 pages and the following attachments:

☒ 1 cited reference(s), totaling 6 pages. ☐

Examination Dept. _____ Examiner: Tian, Fang Seal of the Examination Department

Chinese Patent Application No. 01813250.2

Text Portion of the Notification of the First Office Action

The present invention relates to a flavoring composition for use in manufacturing malt beverages. After examination, the examiner's comments are as follows.

1. Claims 1-7 do not comply with Article 22(3) of the Patent Law. Claim 1 seeks to protect a process for the production of mal beverages. The reference document 1 (D1, US5583262A, cf. the specification, columns 3-4, and Examples 5-7 and 21) also discloses a process for the production of malt beverages, wherein the used flavoring agent comprises the alkali metal salts of reduced (rho-)iso-α-acids; and the said alkali metal salts of reduced (rho-)iso-α-acids are dissolved in water followed by added to the malt beverages. Clearly, claim 1 differs from D1 with respect to that the flavoring agent of said claim further comprises β-acids and hop oil. However, D1 also discloses that various forms of hop extracts are widely used for controlling and stabilizing the flavor of beer. Clearly, in light of D1, a person skilled in the art can easily envisage the combined use of the flavoring agent of D1 with other beer flavoring agents. Meanwhile, the specification discloses in the portion of background art (cf. page 5, paragraph 1) that "other brewers, however, consider that the total removal of the β-acids and essential oils from the wort in the normal brewing process is detrimental to achieving the desired flavor. Thus, for these brewers the production of a beer having improved light-stability and a flavor that is comparable with that of a conventionally brewed beer is only the β-acids and hop oils are present in the wort kettle". It can be known from the above analysis, it is obvious for a person skilled in the art to combine the general knowledge described in the portion of background art of the specification on the basis of D1 so as to obtain the technical solution of claim 1. Therefore, claim 1 neither has prominent substantive features nor represents notable progress, that is, does not possess the inventiveness as required by Article 22(3) of the Patent Law. Claims 3-6 further specify the amounts of various components. Although the amounts of various components of the

flavoring agent are not disclosed in D1, a brewer can easily confirm them according to the desired fragrance and bitterness. Meanwhile, the additional technical features of claims 2 and 7 are general knowledge in the art. As a result, the technical solutions of claims 2-7 bring about no unexpected technical effect. Therefore, when claim 1 is not inventive, claims 2-7 neither have prominent substantive features nor represent notable progress, that is, do not possess the inventiveness as required by Article 22(3) of the Patent Law.

2. Claims 8-11 do not comply with Article 22(3) of the Patent Law. D1 (cf. the specification, column 3, last paragraph) discloses that (rho-)iso-α-acids in their solid alkali metal salts form are firstly obtained, and then the solid salts are dissolved in water and added to a beer kettle. Clearly, claim 8 differs from D1 only by the definition on the concentration of the added (rho-)iso-α-acids. However, a brewer would readily select a suitable amount of reduced (rho-)iso-α-acids as a bittering agent in order to obtain the desired fragrance and bitterness. Hence, claim 8 neither has prominent substantive features nor represents notable progress, that is, does not possess the inventiveness as required by Article 22(3) of the Patent Law over D1. Due to the same reasons, claims 9-11 neither have prominent substantive features nor represent notable progress, that is, do not possess the inventiveness as required by Article 22(3) of the Patent Law.

3. Claims 12-15 do not comply with Article 22(3) of the Patent Law. Although said claims seek to protect a flavoring composition, they are substantively identical with claims 1-7. Hence, due to the same reasons as commented in Item 1, claims 12-15 neither have prominent substantive features nor represent notable progress, that is, do not possess the inventiveness as required by Article 22(3) of the Patent Law.

4. Claims 16-17 and 21 do not comply with Article 22(2) of the Patent Law. Claim 16 seeks to protect a composition. However, D1 (cf. Examples 5-7 and 21) discloses a composition that is completely identical with that of claim 16, i.e., a composition containing reduced (rho-)iso-α-acids in their primarily alkali metal salts form in a concentration exceeding about 40 weight percent. Hence, claim 16 does not comply with Article 22(2) of the Patent Law for lack of

novelty. Claim 17 relates to a process for forming a partially aqueous composition containing reduced (rho-)iso-α-acids. D1 (cf. column 3, lines 47-50) discloses that reduced (rho-)iso-α-acids are converted into their alkali metal (potassium) salts solution. Clearly, the difference between D1 and claims 17 and 21 lies only in literal expression, their technical solutions are identical in essence. Hence, claims 17 and 21 do not comply with Article 22(2) of the Patent Law.

5. Claims 18-20 and 22 do not comply with Article 22(3) of the Patent Law. D1 (cf. Examples) discloses the reduced (rho-)iso-α-acids in their primarily alkali metal salts form; and further discloses that the alkaline solution of the salts is diluted prior to addition to the beer kettle. Clearly, the compound of D1 is added in its almost completely salt form; while a salt formed by an acid and an alkali metal necessarily has a neutral or slightly alkaline pH. Thereby a person skilled in the art would readily obtain the technical solution of claim 18 based on D1. In view that the inventiveness of claims 18-20 and 22 depends on the inventiveness of claim 17, when claim 17 is not novel, claims 18-20 and 22 neither have prominent substantive features nor represent notable progress, that is, do not possess the inventiveness as required by Article 22(3) of the Patent Law.

6. Claims 23-27 do not comply with Article 22(2) of the Patent Law. Claim 23 seeks to protect a composition, wherein the components and concentration of the composition are defined. However, D1 (cf. Examples 5-7) just discloses compositions containing potassium salt of reduced (rho-)iso-α-acids respectively in a concentration of 73.8%, 84.3%, 84.9%, or 54.5% (close to 60% defined in claim 25). Further, D1 (cf., column 3, last paragraph) discloses that the above alkali metal salt is added to a beer kettle, whereby the technical solutions of claims 26-27 are disclosed. Clearly, the difference between D1 and claims 23-27 lies only in literal expression, their technical solutions are identical in essence. Hence, claims 23-27 do not comply with Article 22(2) of the Patent Law for lack of novelty.

7. Claim 1 does not comply with Article 26(4) of the Patent Law. Said claim involves an expression "an isomerized α-acids containing composition is added to a wort, the improvement wherein the isomerized α-acids containing

composition comprises...". However, according to the disclosure contained in the specification (cf. pages 1-2, page 5 paragraph 3, and Examples), this invention provides a novel flavoring composition, where the composition BARho does not contain α-acids and iso-α-acids. Obviously, the claimed composition in claim 1 is not the one recorded in the specification, and thus is lack of substantive support from the specification.

8. The following claims do not comply with Rule 20(1) of the Implementing Regulations of the Patent Law.

(1) Claim 1 involves "reduced (rho-)iso-α-acids", which is disclosed in the specification (cf. page 4, and page 5 paragraph 3) as having Structure VI, wherein R is selected from the group consisting of isopropyl, isobutyl, sec-butyl, and mixtures thereof. However, claim 1 does not clearly define what are reduced (rho-)iso-α-acids, what is the difference between reduced (rho-)iso-α-acids and Structure VI? And which group in the Structure VI is reduced? . The applicant is thus invited to define the said compound using its structure given in the specification.

Further, **(rho-)**iso-α-acids form is present in some claims but **rho**-iso-α-acids form appear in other claims, which are inconsistent. The above defects are also present in claims 3, 4, 8, 9, 10, 12, 13, 14, 16-20, 23 and 25.

(2) The wording "about" in claims 3, 4-6, 8-10, 13-14, 16, 23 and 25 is unclear in its meaning.

The concentration unit "volume/weight percent" in claims 3, 4, 13 and 14 is not clear because there is no comparability between volume and weight.

In addition, the concentration unit "mls/100g" for total oil is present in Table 1 on page 12 of the specification, wherein "mls" is ambiguous in its meaning.

(3) As for the features "hop-derived fats, uncharacterized hop resins" in claim 4, their specific components are not clearly defined, nor the specification gives any clear definition on them. Hence, the protection scope of claim 4 is unclear. Similar defect exists in claim 14.

(4) The feature "late in said boil" in claims 5 and 6 is inconsistent with the feature "a later stage of a boil" in claim 2.

(5) Claim 7 defines that said hop oil contains a compound selected from the group consisting of...and a mixture of one or more thereof. However, according to Table I and its analysis on pages 12-13 of the specification, the embodiment comprises about... and about 6.6% hop oils. Clearly, the total oil in Table I is just the said hop oil of claim 7. However, according to Table I given in the specification, the various components of hop oil defined in claim 7 are not involved in the hop oil defined in the specification. That is, the definition of claim 7 is not clear. Further, the feature "selected from..., and a mixture of **one**...thereof" in claim 7 relates to repetitive definitions. The same defects are also present in claim 15.

(6) (Omitted for being only a Chinese linguistic expression issue).

(7) Claim 16 is not clear with respect to the unnecessary bracket "(of rho-iso-α-acids)".

(8) The term "concentrated" in claim 17 does not clearly define the concentration range of the solution, meanwhile, the term "concentrated solution" has no specified meaning in the art. Hence, the protection scope of claim 17 is not clear. The same defect is also present in claims 18, 20 and 21.

(9) Claim 18 is not clear with respect to the vague expression "substantially neutral or slightly alkaline pH", which does not definitely describe the pH value range.

(10) The term "comprises" in claims 21 and 22 should be amended as "is".

Due to the above reasons, the present application cannot be allowed. The applicant should respond to the objections raised in the present notification one by one within the time limit prescribed therein, and if necessary, make amendments to the application documents. Otherwise, the present application can hardly be allowed. It should be noted that the amendments to application documents should be in line with Article 33 of the Patent Law, i.e. the amendments must not go beyond the scope of the disclosure contained in the initial specification and claims.